

What is claimed is:

1. (Currently Amended) A method of treating myotonic dystrophia in a subject, comprising administering by intramuscular injection to a mammal in need thereof, a therapeutically effective amount of recombinant adeno-associated virus (rAAV) vector comprising a promoter operably linked to a nucleic acid encoding a MBNL1 protein ~~selected from the group consisting of: MBNL1, MBNL2 and MBNL3~~ protein, wherein expression of the protein results in reducing myotonic dystrophia in the subject.

2. (Cancelled)

3. (Cancelled)

4. (Original) The method of claim 1, wherein treating comprises reversing the mis-splicing of the Clcn1 skeletal muscle chloride channel.

5. (Original) The method of claim 1, wherein treating comprises reversing the mis-splicing of the Amyloid beta (A4) precursor protein (APP).

6. (Original) The method of claim 1, wherein treating comprises reversing the mis-splicing of the NMDA receptor NR1 (GRIN1).

7. (Original) The method of claim 1, wherein treating comprises reversing the mis-splicing of the Microtubule-associated protein tau (MAPT).

8. (Original) The method of claim 1, wherein treating comprises reversing the mis-splicing of the TNNT2 (cTNT) protein.

9. (Cancelled)

10. (Original) The method of claim 1, wherein the mammal is human.

11. (Original) The method of claim 1, wherein the mammal in need of treatment has RNA inclusions in neuronal cells.

12. (Currently Amended) A pharmaceutical composition comprising a recombinant adeno-associated virus (rAAV) vector comprising a promoter operably linked to a nucleic acid encoding MBNL1 protein~~containing a transgene that encodes at least one protein selected from the group consisting of MBNL1, MBNL2, MBNL3, and combinations thereof.~~

13. – 32. (Cancelled)

33. (New) The method of claim 1, wherein myotonic dystrophy is characterized by myotonia.

34. (New) A method of treating myotonia in the muscle of a subject suffering from myotonia, comprising intramuscular injection of a recombinant adeno-associated virus (rAAV) vector comprising a promoter operably linked

to a nucleic acid encoding a MBNL1 protein, wherein expression of the protein results in reducing myotonia in the muscle of the subject.